

Notice of Allowability

Application No.

09/938,601

Examiner

Steven P. Sax

Applicant(s)

EJIMA ET AL

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Examiner's Amendment 12/18/06.
2. ☒ The allowed claim(s) is/are 7-8, 10-13, 15-18, 20, 25-27, 30-32.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 12/18/06
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

PR...

Reasons For Allowance

1. This application has been examined.
2. An examiner's amendment to the record appears below. This was made to incorporate into all the independent claims that the invention is a portable camera, and that the two inputted images are a photographic image and a line drawing. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Please rewrite all the claims to reflect the following status and changes:

- 1-6. (Canceled)
7. (Currently Amended) A portable camera, comprising:
 - first image input means for inputting a first image in a portable camera, the first image being a photographic image;
 - first filter means for eliminating a high spatial frequency component of said first image;
 - first memory means for recording said first image having said high spatial frequency component eliminated by said first filter means;

second image input means for inputting a second image in the portable camera, the second image being a line drawing;

second filter means for eliminating a high spatial frequency component of said second image;

second memory means for recording said second image having said high spatial frequency component eliminated by said second filter means;

interpolation means for interpolating said second image recorded in said second memory means;

third filter means for eliminating the high spatial frequency component of said first image output by said first memory means and said second image interpolated by said interpolation means; and

output means for outputting a third image in which said first image having said high spatial frequency component eliminated by said third filter means and said second image having said high spatial frequency component eliminated by said third filter means are superimposed.

8. (Currently Amended) The portable camera of claim 7, further comprising display means for displaying said third image output by said output means.

9. (Canceled)

10. (Currently Amended) The portable camera of claim 7, wherein said second image input means includes a touch tablet and pen means for inputting said line drawing to said touch tablet.

11. (Currently Amended) The portable camera of claim 7, wherein a capacity of said first memory means is greater than a capacity of said second memory means.

12. (Currently Amended) A portable camera, comprising:

- first image input means for inputting a first image in a portable camera, the first image being a photographic image;
- first filter means for eliminating a high spatial frequency component of said first image;
- first memory means for recording said first image having said high spatial frequency component eliminated by said first filter means;
- second image input means for inputting a second image in the portable camera, the second image being a line drawing;
- second filter means for eliminating the high spatial frequency component of said second image;
- second memory means for recording said second image having said high spatial frequency component eliminated by said second filter means;
- interpolation means for interpolating said second image recorded by said second memory means; and
- output means for outputting a third image in which said first image recorded by said first memory means and said second image interpolated by said interpolation means are superimposed.

13. (Currently Amended) The portable camera of claim 12, further comprising display means for displaying said third image output by said output means.

14. (Canceled)

15. (Currently Amended) The portable camera of claim 12, wherein said second image input means includes a touch tablet and pen means for inputting said line drawing to said touch tablet.

16. (Currently Amended) The portable camera of claim 12, wherein a capacity of said first memory means is greater than a capacity of said second memory means.

17. (Currently Amended) A portable camera, comprising:
first image input means for inputting a first image in a portable camera, the first image being a photographic image;
first filter means for eliminating a high spatial frequency component of said first image;
first memory means for recording said first image having said high spatial frequency component eliminated by said first filter means;
second image input means for inputting a second image in the portable camera, the second image being a line drawing;
second filter means for eliminating a high spatial frequency component of said second image;
second memory means for recording said second image having said high spatial frequency component eliminated by said second filter means;

interpolation means for interpolating said second image recorded by said second memory means;

pixel thinning means for performing pixel thinning on said first image recorded by said first memory means; and

output means for outputting a third image in which said first image having undergone processing by said pixel thinning means and said interpolated second image recorded in said second memory means are superimposed.

18. (Currently Amended) The portable camera of claim 17, further comprising display means for displaying said third image output by said output means.

19. (Canceled)

20. (Currently Amended) The portable camera of claim 17, wherein a capacity of said first memory means is greater than a capacity of said second memory means.

21-24. (Canceled)

25. (Currently Amended) A portable camera, comprising:
a first image input device that inputs a first image in a portable camera, the first image being a photographic image;
a first filter coupled to the first image input device to eliminate a high spatial frequency component of said first image;
a first memory area coupled to the first filter to record said first image having said high spatial frequency component eliminated by said first filter;

a second image input device that inputs a second image in the portable camera, the second image being a line drawing;

a second filter coupled to the second image input device to eliminate a high spatial frequency component of said second image;

a second memory area coupled to the second filter to record said second image having said high spatial frequency component eliminated by said second filter;

an interpolation circuit coupled to the second memory area to interpolate said second image recorded in said second memory area;

a third filter coupled to the first memory area and to the interpolation circuit to eliminate the high spatial frequency component of said first image output by said first memory area and said second image interpolated by said interpolation circuit; and

an output device coupled to the third filter to output a third image in which said first image having said high spatial frequency component eliminated by said third filter and said second image having said high spatial frequency component eliminated by said third filter are superimposed.

26. (Currently Amended) A portable camera, comprising:

a first image input device that inputs a first image in a portable camera, the first image being a photographic image;

a first filter coupled to the first image input device to eliminate a high spatial frequency component of said first image;

a first memory area coupled to the first filter to recording said first image having said high spatial frequency component eliminated by said first filter;

a second image input device that inputs a second image in the portable camera, the second image being a line drawing;

a second filter coupled to the second image input device to eliminate the high spatial frequency component of said second image;

a second memory area coupled to the second filter to record said second image having said high spatial frequency component eliminated by said second filter;

an interpolation coupled to the second memory area to interpolate said second image recorded by said second memory area; and

an output device coupled to the first memory area and to the interpolation circuit to output a third image in which said first image recorded by said first memory area and said second image interpolated by said interpolation circuit are superimposed.

27. (Currently Amended) A portable camera, comprising:

a first image input device that inputs a first image in a portable camera, the first image being a photographic image;

a first filter coupled to the first image input device to eliminate a high spatial frequency component of said first image;

a first memory area coupled to the first filter to record said first image having said high spatial frequency component eliminated by said first filter;

a second image input device that inputs a second image in the portable camera, the second image being a line drawing;

a second filter coupled to the second image input device to eliminate a high spatial frequency component of said second image;

a second memory area coupled to the second filter to record said second image having said high spatial frequency component eliminated by said second filter;

an interpolation circuit coupled to the second memory area to interpolate said second image recorded by said second memory area;

a pixel thinning device coupled to the first memory area to perform pixel thinning on said first image recorded by said first memory area; and

an output device coupled to the pixel thinning device and to the interpolation circuit to output a third image in which said first image having undergone processing by said pixel thinning device and said interpolated second image recorded in said second memory area are superimposed.

28-29. (Canceled)

30. (Currently Amended) A method of controlling a portable camera, the method comprising the steps of:

inputting a first image in a portable camera, the first image being a photographic image;

eliminating a high spatial frequency component of said first image;

recording said first image having said high spatial frequency component eliminated therefrom;
inputting a second image in the portable camera, the second image being a line drawing;
eliminating a high spatial frequency component of said second image;
recording said second image having said high spatial frequency component eliminated therefrom;
interpolating said recorded second image;
eliminating the high spatial frequency component of said recorded first image and of said interpolated second image; and
outputting a third image in which said first image having said high spatial frequency component eliminated therefrom and said second image having said high spatial frequency component eliminated therefrom are superimposed.

31. (Currently Amended) A method of controlling a portable camera, the method comprising the steps of:
inputting a first image in a portable camera, the first image being a photographic image;
eliminating a high spatial frequency component of said first image;
recording said first image having said high spatial frequency component eliminated therefrom;

inputting a second image in the portable camera, the second image being a line drawing;

eliminating the high spatial frequency component of said second image;

recording said second image having said high spatial frequency component eliminated therefrom;

interpolating said recorded second image; and

outputting a third image in which said recorded first image and said interpolated second image are superimposed.

32. (Currently Amended) A method of controlling a portable camera, the method comprising the steps of:

inputting a first image in a portable camera, the first image being a photographic image;

eliminating a high spatial frequency component of said first image;

recording said first image having said high spatial frequency component eliminated therefrom;

inputting a second image in the portable camera, the second image being a line drawing;

eliminating a high spatial frequency component of said second image;

recording said second image having said high spatial frequency component eliminated therefrom;

interpolating said recorded second image;
performing pixel thinning on said recorded first image; and
outputting a third image in which said pixel-thinned first image and
said interpolated second image are superimposed.

33-35. (Canceled)

3. Authorization for this examiner's amendment was given in a telephone interview with Mr. Daniel Tanner on 12/18/06.

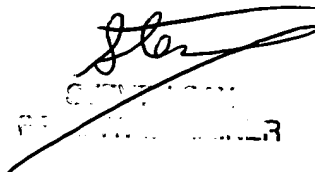
4. The following is an examiner's statement of reasons for allowance: The Examiner's Amendment places the application into condition for allowance by incorporating into all the independent claims that the invention specifically is a portable camera, and also the specific details that the two inputted images are a photographic image and a line drawing. The prior art has graphic processing systems that process digital images including from cameras, as well as image merging systems, but the features combined as now recited in the independent claims as amended (12 – portable camera, 7 – portable camera with third filter means, 17 – portable camera with pixel thinning means, 25 – portable camera with interpolation described as through a circuit, 26 – portable camera like claim 12 with the output device coupled to the memory, 27 – portable camera like claim 17 with the output device coupled to the pixel thinning device, 30 – method claim like claim 7, 32- method claim like claim 17) are not set forth in the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven P. Sax whose telephone number is (571) 272-4072. The examiner can normally be reached on Monday thru Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



STEVEN P. SAX
Examiner